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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,732

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Masugi Inoue

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EXAMINER

DEAN, JR, JOSEPH E

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,732	<b>Applicant(s)</b> INOUE ET AL.	
	<b>Examiner</b> JOSEPH DEAN, JR	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant added a new claim; claim 9 is the newly added claim.
2. Status of claims:

Claims 1-9 are pending.

### ***Response to Arguments***

3. Applicant's arguments, see Remarks, filed 08/3/2010, with respect to the rejection(s) of claim(s) 1-8 under 102, 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hicks III et al. (US20040259541) and Ahmad et al. (US7113799).

### ***Claim Objections***

4. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n). Claims 2-6 are dependent claims and refer to dependent claims 7 and 8, therefore sequence is changed, and claims 7 and 8 should precede claims 2 thru 6. Corrective action is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks III et al. (US20040259541) (hereinafter Hicks III) and further in view of Ahmad et al. (US7113799) (hereinafter Ahmad).

Per claim 1, Hicks III discloses wherein the wireless communications system is able to be connected to at least two kinds of wireless communication networks (paragraph 0060, Fig 5), simultaneously, two of the wireless communication networks are to be selected as a basic access network and a wireless access network (paragraph 0021, Fig 1, **i.e. basic network is regulated wireless network and wireless access network is unregulated wireless network**); respectively; the basic access network is able to deal with data communications in addition to signaling communication (paragraph 0084, **i.e. regulated wireless network**); and when the wireless communication terminal detects communication trouble in the wireless access network (paragraph 0006, **i.e. moves outside of range of wireless access point**) the wireless communication terminal is currently currently-connecting the wireless communication terminal searches a new wireless communication network available (paragraph 0076, **i.e. dual mode phone equipped with SIM card, used to identify users and**

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**service providers to be able to roam into service provider's wireless and wired networks**), and the wireless communication terminal temporary uses the currently-connecting basic access network for data communications in addition to signaling communication until the new wireless communication network is designated as a new wireless access network (paragraph 0006, **i.e. switches to mobile network or regulated network**), but fails to disclose the wireless access network deals with communication only data communications.

However, Ahmad discloses the wireless access network deals with communication only data communications (col.2 line 17-33, fig 2, **i.e. base station sends pseudo signal to determine if mobile station is present or available, real signaling cannot be performed in data/IP network**)

Therefore, one skilled in the art would have found it obvious from the combined teachings of Hicks, which provides integrated wireless and wired voice and data services via dual mode device and Ahmad provides, interface between base station and access network controller systems to facilitate and respond to a voice call when hybrid mobile station is engaged in a data only call as a whole to produce the invention as claimed with a reasonable expectation of interacting seamless between two networks and determining if mobile device is on a data call only through a pseudo signal.

Per claim 7, the combination discloses the wireless communications system according to claim 1, wherein: Hicks discloses the wireless communication terminal comprises a seamless application processing unit for executing connection processing to the basic access network and

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connection/disconnection processing to and from the wireless access network (paragraph 0075), a basic access network client processing unit having a client function in the signaling communication (paragraph 0020 and 0059), a multicast communication node application processing unit for setting multicast reception using at least the two kinds of the wireless communication networks( paragraphs 0035, 0036 0084 and 0090, **i.e. MAC address is assigned to cordless handset once entering a new location, recognizes MAC address is being broadcast, after receiving indication data may be transferred. Network switches back from a regulated network to unregulated network while broadcasting is being received by unregulated network**) and the respective network devices corresponding to the respective wireless communication networks (paragraph 0035), and the respective wireless communication terminal identifies the geographical position of the respective wireless communication terminal and informs the wireless communication server of the geographical position of the respective wireless communication terminal( paragraph 0035 and 0036).

Per claim 9, the combination discloses the wireless communications system according to claim 1, wherein Hicks III discloses when the wireless communications system are simultaneously connected to the basic access network and the wireless access network and the wireless communication terminal detects no communication trouble in the wireless access network (paragraph 0007), the wireless communication terminal uses the wireless access network for data communications only and continues using the basic access

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network for signaling communications without using the basic access network for data communications (col.3 line 32-64).

Therefore, one skilled in the art would have found it obvious from the combined teachings of Hicks III and Ahmad as a whole to produce the invention as claimed with a reasonable expectation of achieving overall efficiency by not continuously sending needless paging signals due to the mobile device is in active data call, instead facilitating a pseudo message between the base station and access network controller which allows both networks to function seamless for voice and data calls.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks III and Ahmad as applied to claim 8 above, and further in view of Tsirtsis and Ohtani .

Per claim 2, the combination discloses the wireless communications system according to claim 8, wherein Hicks III discloses the wireless communication server comprises two servers of (paragraph 0026), a home agent server comprising the home agent application processing unit and the basic access network server processing unit (paragraph 0026), Tsirtsis discloses a

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resource server comprising the terminal status table, the terminal configuration table (col. 7 lines 66-67, col. 8 lines 1-13 & table 1-11 **i.e. session signaling server access resource and state information**); and the basic access network server processing unit obtains or registers the information in the respective tables of the resource server through a wired or wireless communication network (col. 8 lines 1-13 & table 1-11).

Ohtani discloses the preference setting table (paragraph 0077, Fig 4a)

Therefore, taking the combined teachings of Hicks III, Ahmad, Tsirtsis and Ohtani as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to incorporate home agent processing unit or HLR suggested by Hicks III, a resource server for state information suggested by Tsirtsis, a preference setting table suggested by Ohtani for the advantages of listing out and providing order to the sequence of events.

Per claim 6, in the obvious combination, Tsirtsis discloses wherein the terminal status table provides information relating to at least the identification symbols of the wireless communication terminals, the basic access network in use, the wireless access network in use, and a multicast communication status (refer to Table 1-11, message content and state information).

Therefore, taking the combined teachings of Hicks III, Ahmad, Tsirtsis and Ohtani as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to incorporate managing communication status suggested Tsirtsis for advantages of maintaining updated data.



Per claim 8, the combination discloses the wireless communications system according to claim 1, wherein: Hicks discloses the wireless communication server comprises a home agent application processing unit for setting a multicast transmission using at least the two kinds of the wireless communication networks (paragraph 0026, 0034-0036, see explanation in claim 7); and the wireless communication server updates the geographical position of the wireless communication terminal (paragraph 0035 and 0075), which is obtained from the respective wireless communication terminal, and informs the wireless communication terminal of available wireless networks when the respective wireless communication terminal enters an out-of-service area (paragraph 0035 and 0075)., **Ohtani** discloses a basic access network server processing unit for notifying, when the wireless communication networks are continuously switched (paragraph 0006, 0014, 0031and 0032); a preference setting table for managing the order of the wireless communication networks acting as switching candidates when the wireless communication networks are continuously switched (paragraph 0030-0032) the wireless communication terminals of a wireless communication network acting as a switching candidate (paragraph 0006, 0014, 0031and 0032), **Tsiritsis** discloses for managing the signaling communication for communicating the status of the respective wireless communication terminals there between (col.7 line 66-col.8 line 13, and col.19-31, tables 1-11), and for managing the registration/update processing of the respective wireless communication terminals (col.16 lines 54-66), a terminal status table for managing the status of the respective wireless communication

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terminals (col.7 line 66 through col. 8 line 13 and col. 19-31), a terminal configuration table for managing wireless communication network interfaces implemented in the respective wireless communication terminals (col.7 line 66 through col. 8 line 13 and col. 19-31).

Therefore, taking the combined teachings of Hicks III, Ahmad, Tsirtsis and Ohtani as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to incorporate home agent processing unit or HLR suggested by Hicks III, managing the registration update processing suggested by Tsirtsis, a preference setting table suggested by Ohtani for the advantages of listing out and providing order to the sequence of events.

9. Claim3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks III and Ahmad as applied to claim7 above, and further in view of Hamasaki and Ohtani.

Per claim 3, the combination discloses the wireless communications system according to any claim 7, wherein: Hicks III discloses when the seamless application processing unit of the wireless communication terminal executes connection processing to the basic access network (paragraph 0075), Hamasaki discloses the seamless application processing unit tries to connect to the network with reference to basic access network candidate information that in advance records(paragraph 0016, **i.e. the processor predicts when the MT will move to an area covered by the WLAN and based on the prediction, the processor pre-registers the MT with the WLAN so that when the MT enters**

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**the WLAN covered area**), the wireless communication networks used as a candidate for the basic access network as well as when the network cannot be connected (paragraph 0006), Ohtani discloses the seamless application processing unit executes processing for sequentially trying to connect to a next candidate network (Abstract).

Therefore taking the combined teachings of Hicks III, Ahmad, Ohtani and Hamasaki as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to implement seamless application processing unit of the wireless communication terminal executes connection processing to the basic access network (Hicks III, Ahmad), seamless application processing unit executes processing for sequentially trying to connect to a next candidate networks wireless communication system by Ohtani and the seamless application processing unit tries to connect to the network with reference to basic access network candidate information that in advance records the wireless communication networks used as a candidate for the basic access network as well as when the network cannot be connected suggested by Hamasaki for the advantages of sending advance data to focus area with proper connectivity.

10. Claim4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks III, Ahmad as applied to claim7 above, and further in view of Bahl , Ohtani and Hamasaki.

Per claim 4, the combination discloses the wireless communication system according to claim 7 , Ohtani discloses the wireless communications system wherein when the network device of a wireless communication detects

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abnormal communication (paragraph 0088) of the wireless access network, Bahl discloses after the seamless application processing unit notifies the multicast communication node processing application unit of switching of communication to the basic access network and then switches the communication (per claim 0041, 0046, 0052 and 0055, Fig 6, i.e. **(IS)/first network is where signaling is generated, the poll signals determine if signals are multicast to AH/ second network**), the seamless application processing unit tries to connect to a wireless access network acting as a next candidate (refer to explanation in claim 3) with reference to wireless access network candidate information that in advance records the candidates of wireless communication networks used as the wireless access network as well as when the network cannot be connected (refer to explanation in claim 3), the seamless application processing unit executes processing for sequentially trying to do network connection to a next candidate in the condition that the wireless access network is not the same as the basic access network and the basic access network is connected (refer to explanation in claim 3).

Therefore, taking the combined teachings of Hicks III, Ahmad, Bahl, Ohtani and Hamasaki as a whole, it would have been obvious to one of ordinary skill in this art of the time of invention by Applicant to incorporate the network device of a wireless communication terminal detects abnormal communication of the wireless access network suggested by Ohtani for the advantages of detecting errors at various network element levels to improve overall efficiency.

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11. Claim5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks III, Ahmad as applied to claim7 above, and further in view of Bahl.

Per claim 5, in the obvious combination, Bahl discloses wherein when a user instructs to switch the wireless access network or the basic access network in the wireless communication terminal (Abstract, **i.e. controller driver controls switching to IS or AH network**), after the seamless application processing unit notifies the multicast communication node application processing unit of switching of communication to the basic access network (paragraph 0053), the seamless application processing unit executes processing for changing network connection from the current wireless access network or basic access network to a specified wireless access network or basic access network (paragraph 0053).

Therefore, taking the combined teachings of Hicks III, Ahmad and Bahl, as a whole, it would have been obvious to one of ordinary skill in this art of the time of invention by Applicant to incorporate the user of a wireless communication terminal to switch to wireless or basic access network suggested by Bahl for the advantages of improving overall efficiency as well as maintaining a connection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH DEAN, JR whose telephone number is (571)270-7116. The examiner can normally be reached on Monday through Friday 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bost Dwayne can be reached on 571-272-7023. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner, Art Unit 2617

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